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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/763,789

01/23/2004

David W. Herbage

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WYATT, TARRANT & COMBS, LLP  
1715 AARON BRENNER DRIVE  
SUITE 800  
MEMPHIS, TN 38120-4367

EXAMINER

LEE, BENJAMIN P

ART UNIT

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/763,789	<b>Applicant(s)</b> HERBAGE ET AL.	
	<b>Examiner</b> BENJAMIN P. LEE	<b>Art Unit</b> 3641	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 11 January 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-42 is/are pending in the application.
- 4a) Of the above claim(s) 20-42 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 and 11-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election without traverse of Group I, claims 1-19 in the reply filed on 1/11/2008 is acknowledged. Claims 1-19 have been examined and claims 20-42 are withdrawn.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 3-9, 11 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by BRUM et al. (U.S. Patent 5915694).

3. In regards to claim 1, BRUM et al disclose a flare pellet assembly for providing at least one of visual and infrared energy output (col. 7, lines 62-64), said flare pellet assembly comprising at least first and second ignitable flare pellets arranged in a stack (items 54 of BRUM et al figs. 4 and 5 following).

4. In regards to claim 3, BRUM et al disclose that at least one of said first and second ignitable flare pellets is substantially disk shaped (see BRUM et al fig. 3 following).

5. In regards to claim 4, BRUM et al disclose that the first and second ignitable flare pellets are substantially identical in size and design (see BRUM et al fig. 3 following).

6. In regards to claim 5, BRUM et al disclose that the first and second ignitable flare pellets are affixed to each other. Note that the pellets of BRUM et al are affixed together between peripheral portion (item 28 of BRUM et al fig. 4 following) and the piston (item 76) via the deployment rods (item 72).

7. In regards to claim 6, BRUM et al disclose means for substantially immobilizing said first ignitable flare pellet relative to said second ignitable flare pellet (see BRUM et al fig. 3 following). Note that the deployment rods (items 72) act to immobilize the disks to the degree specified by Applicant.

8. In regards to claim 7, BRUM et al disclose a rod (item 72 of BRUM et al figs. 4 and 5 following) that extends through said first and second ignitable flare pellets (see BRUM et al figs. 4 and 5 following).

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9. In regards to claim 8, disclose that at least one of said first and second ignitable flare pellets is affixed to said rod. Note that the disks of BRUM et al are fixed in a position with the rods as part of a deployment system (see BRUM et al figs. 3-5 following).

10. In regards to claim 9, BRUM et al disclose means for preventing rotation of said first ignitable flare pellet relative to said rod. Note that the pellets are immobilized relative to the rods prior to deployment, since axial movement is curtailed via the peripheral portion and radial movement is curtailed via the multiple rods (see BRUM et al figs. 3-5 following).

11. In regards to claim 11, BRUM et al disclose that the rod comprises a stop at a first end of said rod (item 28 of BRUM et al fig. 3 "peripheral portion") and a threaded second end of said rod (item 76 "piston").

12. In regards to claim 12, BRUM et al disclose a threaded fastener (items 22/28 of BRUM et al fig. 4 following) engaged with said threaded second end of said rod, and wherein said first and second ignitable flare pellets are disposed between said stop of said rod and said threaded fastener (col. 7, lines 35-41).

***Claim Rejections - 35 USC § 103***

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The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

13. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over BRUM et al. (U.S. Patent 5915694).

14. In regards to claim 2, BRUM et al disclose that at least one of said first and second ignitable flare pellets comprises a frustum. Note that BRUM et al fail to explicitly teach that the pellets have a frustum. However, it would have been an obvious matter of design choice to make the different portions of the pellets of whatever form or shape was desired or expedient. A change in form or shape is generally recognized as being within the level of ordinary skill in the art, absent any showing of unexpected results. *In re Dailey et al.*, 149 USPQ 47. Further note that Applicant disclose that the pellets may

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be of numerous design, shapes and dimensions (page 6, lines 12-20) and therefore Examiner does not consider this aspect of the shape to be critical.

15. Claims 13-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over BRUM et al. (U.S. Patent 5915694) in view of CALLAWAY et al. (U.S. Patent Application Publication).

16. In regards to claim 13, BRUM et al disclose a flare pellet assembly for providing at least one of visual and infrared energy output (col. 7, lines 62-64), said flare pellet assembly comprising: first and second flare pellets made of at least one ignitable material (items 54 of BRUM et al fig. 3 following) and, wherein said first and second flare pellets are disposed along a longitudinal reference axis (see BRUM et al figs. 4 and 5 following);

BRUM et al fail to teach a tapered groove defined between said first and second flare pellets (along the longitudinal axis), wherein said tapered groove tapers toward said longitudinal reference axis. However, CALLAWAY et al teach incorporating a groove into infrared flare pellets (par. 11). It would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to incorporate grooves as taught by CALLAWAY et al into the pellets of BRUM et al, to increase the surface area of the pellet and provide better ignition.

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17. In regards to claim 14, BRUM et al as modified fail to explicitly teach that the grooves comprise an interior angle of about between 5° and 35°. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate any of various groove angles, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. See *In re Aller*, 105 USPQ 233.

18. In regards to claim 15, BRUM et al as modified teach that the groove is annularly disposed about the longitudinal axis. Note that the previous obvious rational to incorporate a groove provide for incorporating the groove “around” the circumference of the pellet disk.

19. In regards to claim 16, BRUM et al teach means for substantially immobilizing the first flare pellet relative to the second flare pellet (see BRUM et al figs. 3-5 following). Note that the aft peripheral portion (item 28) and the piston (item 76) together with the rods (items 72) act to “substantially” immobilize the pellet relative to each other prior to deployment.

20. In regards to claim 17, BRUM et al teach a rod that extends through the first and second pellets (item 72 of BRUM et al fig. 3 following).



21. In regards to claim 18, BRUM et al disclose that at least one of the pellets is affixed to the rod (see BRUM et al figs. 4 and 5 following). Note that prior to deployment, the disks are essentially affixed to the rods as they are penetrated by at least three deployment rods and sandwiched between the aft peripheral portion and The piston.

22. In regards to claim 19, BRUM et al disclose means for preventing rotation of the first flare pellet relative to the rod (see BRUM et al figs. 3-5 following). Note that the configuration of three penetrating rods and the aft peripheral portion and piston on each end provide the limitation.

#### ***Allowable Subject Matter***

23. Claim 10 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The following is an examiner's statement of reasons for allowance: The closest prior art fails to disclose, in combination with all the limitations of the base claim and all intervening claims, that the means for preventing rotation of the first ignitable flare pellet relative to the rod comprises a protrusion associated with one of the flare pellet and the rod and a depression configured to accommodate the protrusion associated with another of the first pellet and the rod.

#### ***Summary/Conclusion***

24. Claims 1-9 and 11-19 are rejected.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Benjamin P. Lee whose telephone number is 571-272-8968. The examiner can normally be reached between the hours of 8:30am and 5:00pm on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Carone can be reached on 571-272-6873. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/B. P. L./

Examiner, Art Unit 3641

/Troy Chambers/

Primary Examiner, Art Unit 3641

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